

What is claimed is:

1. A method for identifying compounds that modulate an NIMR polypeptide activity comprising:
 - contacting an NIMR polypeptide with a test compound under conditions which allow interaction of the compound with the polypeptide;
 - determining the ability of the test compound to modulate the activity of an NIMR polypeptide; and
 - selecting those compounds that modulate the activity of the NIMR polypeptide to thereby identify compounds that modulate NIMR polypeptide activity.
2. The method of claim 1, wherein the NIMR polypeptide is selected from the group consisting of: b0357, b0447, b0853, b1448, b2530, b2889, b2948, b3469, *mdaB*, *yadG*, *yadH*, *ybfC*, *yfaE*, *yggJ*, and *yhbW*.
3. The method of claim 1, wherein the NIMR polypeptide activity comprises promoting the ability of a microbe to resist an environmental challenge.
4. The method of claim 3, wherein the NIMR polypeptide is selected from the group consisting of: *aceG*, *ackA*, *aldA*, *cobU*, *fabB*, *fecA*, *galK*, *galT*, *gatA*, *gatC*, *glpD*, *gltA*, *gshB*, *guaB*, *hemB*, *map*, *mglB*, *mtr*, *ndh*, *nfnB*, *pflB*, *pgi*, *purA*, *ribD*, *rimK*, *rplE*, *srIA_2*, *tnaA*, *tnaL*, *tpx*, *acnA*, *mdaA*, *ribA*, and *ydeA*.
5. The method of claim 1, wherein the NIMR polypeptide activity comprises promotion of microbial virulence.
6. The method of claim 5, wherein the NIMR polypeptide is selected from the group consisting of: *aceG*, *ackA*, *aldA*, *cobU*, *fabB*, *fecA*, *galK*, *galT*, *gatA*, *gatC*, *glpD*, *gltA*, *gshB*, *guaB*, *hemB*, *map*, *mglB*, *mtr*, *ndh*, *nfnB*, *pflB*, *pgi*, *purA*, *ribD*, *rimK*, *rplE*, *srIA_2*, *tnaA*, *tnaL*, *tpx*, *acnA*, *mdaA*, *ribA*, and *ydeA*.
7. The method of any of claims 1, 3, or 5 wherein said step of determining comprises measuring the efflux of the test compound or a marker compound from the cell.

8. The method of any of claims 1, 3, or 5 wherein said step of determining comprises measuring the ability of the microbe to grow or remain viable in the presence of the environmental challenge.
9. The method of any of claims 1, 3, or 5 wherein the NIMR polypeptide is present in a microbial cell.
10. The method of claim 9, wherein the NIMR polypeptide is heterologous to the cell in which it is present.
11. A method for identifying compounds that modulate an NIMR polypeptide activity comprising:
 - contacting an NIMR polypeptide with a test compound under conditions which allow interaction of the compound with the polypeptide;
 - determining the ability of the test compound to modulate the expression of an NIMR polypeptide; and
 - selecting those compounds that modulate the expression of the NIMR polypeptide to thereby identify compounds that modulate NIMR polypeptide activity.
12. The method of claim 11, wherein the NIMR polypeptide is selected from the group consisting of: b0357, b0447, b0853, b1448, b2530, b2889, b2948, b3469, *mdaB*, *yadG*, *yadH*, *ybjC*, *yfaE*, *yggJ*, and *yhbW*.
13. The method of claim 11, wherein the NIMR polypeptide is selected from the group consisting of: *aceG*, *accB*, *aceF*, *ackA*, *aldA*, *cobU*, *fabB*, *fecA*, *galK*, *galT*, *gatA*, *gatC*, *glpD*, *gltA*, *gshB*, *guaB*, *hemB*, *map*, *mgIB*, *mtr*, *ndh*, *nfnB*, *pflB*, *pgi*, *purA*, *ribD*, *rimK*, *rplE*, *srlA_2*, *tnaA*, *tnaL*, *tpx*, *acnA*, *mdaA*, *ribA*, and *ydeA*.
14. The method of any one of claims 12 or 13, wherein the step of measuring comprises measuring the amount of RNA produced by the cell.
15. The method of any one of claims 12 or 13, wherein the step of measuring comprises measuring the amount or activity of a reporter gene product produced by the cell.

16. The method of claim 15 wherein the step of measuring comprises detecting the ability of an antibody to bind to the reporter gene product.
17. The method of any of claims 1, 3, or 5 wherein the NIMR polypeptide is present in a cell free system.
18. The method of claim 17, wherein the step of determining comprises measuring the ability of the compound to bind to the NIMR polypeptide.
19. A method for decreasing the virulence of a microbe comprising exposing the microbe to an environmental challenge and to an agent that modulates the activity of an NIMR polypeptide.
20. A method for reducing the *marA* mediated transcription of an NIMR gene comprising exposing the microbe to an environmental challenge and to an agent that modulates the activity of an NIMR polypeptide.
21. A method for identifying compounds that modulate activity of an NIMR polypeptide in a microbe comprising:
 - contacting an isolated NIMR nucleic acid molecule with a test compound under conditions which allow interaction of the compound with the nucleic acid molecule;
 - determining the ability of the test compound to bind to the isolated NIMR nucleic acid molecule; and
 - selecting those compounds that bind to the NIMR nucleic acid molecule to thereby identify compounds that modulate activity of an NIMR polypeptide.
22. The method of claim 21, wherein the NIMR polypeptide is selected from the group consisting of: b0357, b0447, b0853, b1448, b2530, b2889, b2948, b3469, *mdaB*, *yadG*, *yadH*, *ybjC*, *yfaE*, *yggJ*, and *yhbW*.
23. The method of claim 21, wherein the NIMR polypeptide activity comprises promoting the ability of a microbe to resist an environmental challenge.
24. The method of claim 22, wherein the NIMR polypeptide is selected from the group consisting of: *accB*, *aceF*, *aceG*, *ackA*, *aldA*, *cobU*, *fabB*, *fecA*, *galK*, *galT*, *gatA*, *gatC*, *glpD*, *gltA*, *gshB*, *guaB*, *hemB*, *map*, *mgIB*, *mtr*, *ndh*, *nfnB*, *pflB*, *pgi*, *purA*, *ribD*, *rimK*, *rplE*, *srlA_2*, *tnaA*, *tnaL*, *tpx*, *acnA*, *mdaA*, *ribA*, and *ydeA*.

25. The method of claim 19, wherein the NIMR polypeptide activity comprises promotion of the virulence of a microbe.
26. The method of claim 25, wherein the NIMR polypeptide is selected from the group consisting of: *aceG*, *ackA*, *aldA*, *cobU*, *fabB*, *fecA*, *galK*, *galT*, *gatA*, *gatC*, *glpD*, *gltA*, *gshB*, *guaB*, *hemB*, *map*, *mglB*, *mtr*, *ndh*, *nfnB*, *pflB*, *pgi*, *purA*, *ribD*, *rimK*, *rplE*, *srlA_2*, *tnaA*, *tnaL*, *tpx*, *acnA*, *mdaA*, *ribA*, and *ydeA*.
27. The method of claim 21, wherein the environmental challenge is an antibiotic compound.
28. The method of claim 21, wherein the environmental challenge is non-antibiotic compound.
29. The method of claim 28, wherein the non-antibiotic compound is a candidate disinfectant or antiseptic compound.
30. A vaccine comprising at least one NIMR nucleic acid molecule or an NIMR polypeptide and a pharmaceutically acceptable carrier.
31. A composition comprising at least one compound that modulates the activity of an NIMR polypeptide and at least one antibiotic.
32. A composition comprising at least one compound that modulates the activity of an NIMR polypeptide and at least one non-antibiotic compound.
33. A method for reducing the virulence of a microbe in a subject suffering from a microbial infection comprising administering at least one NIMR modulating agent to the subject such that the virulence of the microbe is reduced.
34. A method for treating a microbial infection in a subject comprising administering at least one NIMR modulating agent to the subject such that the infection is treated.

35. A method for reducing the infectivity of a microbe on a surface comprising contacting the microbe with at least one NMR modulating agent such that the infectivity of the microbe is reduced.
36. The method of any one of claims 33, 34, or 35, wherein the microbe is a gram positive bacteria.
37. The method of any one of claims 33, 34, or 35, wherein the microbe is a gram negative bacteria.
38. The method of any one of claims 33, 34, or 35, wherein the microbe is an acid fast bacteria.